```
Paracel BLAST Results
 Home
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 MEGABLAST 1.2.3-Paracel [2001-11-20]
 Reference:
 Zheng Zhang, Scott Schwartz, Lukas Wagner, and Webb Miller (2000),
 "A greedy algorithm for aligning DNA sequences",
 J Comput Biol 2000; 7(1-2):203-14.
 Database: Homo_sapiens.latestgp.fa
         26,679 sequences; 200,800,637,119 total letters
 Query= LEX 71 SEQ ID
ATGACATCTAAGAATTATCCCGGGACCTACCCCAATCACACTGTTTGCGAAAAGACAATT
       (1404 letters)
                                                   Score
                                                           Ε
Sequences producing significant alignments:
                                                    (bits)
                                                         Value
Z85999.1.1.100808
                                                     432
                                                        e-118
BX284630.7.1.191878
                                                     432
                                                        e-118
>Z85999.1.1.100808
        Length = 100808
 Score = 432 \text{ bits } (218), \text{ Expect = } e-118
 Identities = 218/218 (100%)
 Strand = Plus / Plus
Query: 544
          ggttgcagcagatccttgagttttgaacctgacgggcaaatcagagcttcttcctcatgg 603
          Sbjct: 51085 ggttgcagcagatccttgagttttgaacctgacgggcaaatcagagcttcttcctcatgg 51144
Query: 604
          cagtcggtcaatgagagtggagaccaagttcactggtctcctggccaagcccgacttcag 663
          Sbjct: 51145 cagtcggtcaatgagagtggagaccaagttcactggtctcctggccaagcccgacttcag 51204
Query: 664
          gaccaaggcccatcatgggcttcgggcgacagtagcaacaaccacaaaccacgagagtgg 723
          Sbjct: 51205 gaccaaggcccatcatgggcttcgggcgacagtagcaacaaccacaaaccacgagagtgg 51264
Query: 724
          Sbjct: 51265 ctggagatcgatttgggggagaaaaaagaaataacagg 51302
Score = 303 \text{ bits } (153), Expect = 2e-79
Identities = 153/153 (100%)
Strand = Plus / Plus
Query: 884
```

```
Query: 944
          tcgtggccagatatgtgcgggttgtcccccagacatggcaccagaggatagccttgaagg 1003
           Sbjct: 53192 tcgtggccagatatgtgcgggttgtcccccagacatggcaccagaggatagccttgaagg 53251
Query: 1004 tggagctcattggttgccagattacacaaggta 1036
           Sbjct: 53252 tggagctcattggttgccagattacacaaggta 53284
 Score = 270 bits (136), Expect = 2e-69
 Identities = 136/136 (100%)
 Strand = Plus / Plus
Query: 109
          ggtccatactgtggaagtatgactgttcccaaagaactcttgttgaacacaagtgaagta 168
          Sbjct: 32281 ggtccatactgtggaagtatgactgttcccaaagaactcttgttgaacacaagtgaagta 32340
Query: 169
          accgtccgctttgagagtggatcccacatttctggccggggttttttgctqacctatgcq 228
          Sbjct: 32341 accgtccgctttgagagtggatcccacatttctggccggggttttttgctgacctatgcg 32400
Query: 229
          agcagcgaccatccag 244
          Sbjct: 32401 agcagcgaccatccag 32416
 Score = 266 bits (134), Expect = 3e-68
 Identities = 134/134 (100%)
 Strand = Plus / Plus
Query: 370
          acctctttattgtgcaaagctgccatccatgcaggaataattgctgatgaactaggtggc 429
          Sbjct: 44726 acctctttattgtgcaaagctgccatccatgcaggaataattgctgatgaactaggtggc 44785
Query: 430
          cagatcagtgtgcttcagcgcaaagggatcagtcgatatgaagggattctggccaatggt 489
          Sbjct: 44786 cagatcagtgtgcttcagcgcaaagggatcagtcgatatgaagggattctggccaatggt 44845
Query: 490
          gttctttcgaggga 503
          Sbjct: 44846 gttctttcgaggga 44859
Score = 256 bits (129), Expect = 3e-65
Identities = 129/129 (100%)
Strand = Plus / Plus
```

. 77

```
aggaattaggaccacaggatctacacagtcgaacttcaacttttatgttaagagttttgt 818
Query: 759
         Sbjct: 51719 aggaattaggaccacaggatctacacagtcgaacttcaacttttatgttaagagttttgt 51778
         gatgaacttcaaaaacaataattctaagtggaagacctataaaggaattgtgaataatga 878
Query: 819
         Sbjct: 51779 gatgaacttcaaaaacaataattctaagtggaagacctataaaggaattgtgaataatga 51838
         agaaaaggt 887
Query: 879
         1111111
Sbjct: 51839 agaaaaggt 51847
 Score = 248 bits (125), Expect = 8e-63
 Identities = 125/125 (100%)
 Strand = Plus / Plus
Query: 1337
         tcagctatgataatgagaaggagatgacacaaaagttagatctcatcacaagtgatatgg 1396
         Sbjct: 58001 tcagctatgataatgagaaggagatgacacaaaagttagatctcatcacaagtgatatgg 58060
Query: 1397 caggt 1401
         1111
Sbjct: 58061 caggt 58065
Score = 220 bits (111), Expect = 2e-54
Identities = 111/111 (100%)
Strand = Plus / Plus
         acagtaccaaaggggaaaagactgattctgaggttgggagatttggatatcgaatcccag 60
Ouery: 1
         Sbjct: 16337 acagtaccaaaggggaaaagactgattctgaggttgggagatttggatatcgaatcccag 16396
Query: 61
         acctgtgcttctgactatcttctcttcaccagctcttcagatcaatatggt 111
         Sbjct: 16397 acctgtgcttctgactatcttctcttcaccagctcttcagatcaatatggt 16447
Score = 220 \text{ bits (111)}, Expect = 2e-54
Identities = 111/111 (100%)
Strand = Plus / Plus
Query: 1032 aggtaatgattcattggtgtggcgcaagacaagtcaaagcaccagtgtttcaactaagaa 1091
```

Sbjct: 53382 aggtaatgattcattggtgtggcgcaagacaagtcaaagcaccagtgtttcaactaagaa 53441 Query: 1092 agaagatgagacaatcacaaggcccatcccctcggaagaaacatccacagg 1142 Sbjct: 53442 agaagatgagacaatcacaaggcccatcccctcggaagaaacatccacagg 53492 Score = 180 bits (91), Expect = 2e-42Identities = 91/91 (100%) Strand = Plus / Plus Query: 1140 aggaataaacattacaacggtggctattccattggtgctccttgttgtcctggtgtttgc 1199 Sbjct: 55588 aggaataaacattacaacggtggctattccattggtgctccttgttgtcctggtgtttgc 55647 Query: 1200 tggaatggggatctttgcagcctttagaaag 1230 Sbjct: 55648 tggaatggggatctttgcagcctttagaaag 55678 Score = 151 bits (76), Expect = 1e-33Identities = 76/76 (100%) Strand = Plus / Plus · Query: 294 cagcaaattctgcccagctggttgtagagacgtagcaggagacatttctgggaatatggt 353 Sbjct: 37825 cagcaaattctgcccagctggttgtagagacgtagcaggagacatttctgggaatatggt 37884 Query: 354 agatggatatagagat 369 Sbjct: 37885 agatggatatagagat 37900 Score = 109 bits (55), Expect = 5e-21Identities = 55/55 (100%) Strand = Plus / Plus Query: 242 cagatttaataacatgtttggaacgagctagccattatttgaagacagaatacag 296 Sbjct: 33988 cagatttaataacatgtttggaacgagctagccattatttgaagacagaatacag 34042 Score = 91.7 bits (46), Expect = 1e-15Identities = 49/50 (98%) Strand = Plus / Plus Query: 1230 gaagaagaaggaagtccgtatggatcagcggaggctcagaaaacag 1279 Sbjct: 56994 gaagaagaaggaagtccgtatggatcagcagaggctcagaaaacag 57043

```
Score = 85.7 bits (43), Expect = 7e-14
Identities = 43/43 (100%)
Strand = Plus / Plus
         tggttccctgtcagacaagcgatttctgtttacctccaatggt 546
Query: 504
         Sbjct: 49651 tggttccctgtcagacaagcgatttctgtttacctccaatggt 49693
>BX284630.7.1.191878
      Length = 191878
Score = 432 bits (218), Expect = e-118
Identities = 218/218 (100%)
Strand = Plus / Minus
         ggttgcagcagatccttgagttttgaacctgacgggcaaatcagagcttcttcctcatgg 603
Query: 544
         Sbjct: 147574 ggttgcagcagatccttgagttttgaacctgacgggcaaatcagagcttcttcctcatgg 147515
         cagtcggtcaatgagagtggagaccaagttcactggtctcctggccaagcccgacttcag 663
Query: 604
         Sbjct: 147514 cagtcggtcaatgagagtggagaccaagttcactggtctcctggccaagcccgacttcag 147455
         gaccaaggcccatcatgggcttcgggcgacagtagcaacaaccacaaaccacgagagtgg 723
Query: 664
         Sbjct: 147454 gaccaaggcccatcatgggcttcgggcgacagtagcaacaaccacaaaccacgagagtgg 147395
         ctggagatcgatttgggggagaaaaaaaaaaaataacagg 761
Query: 724
         Sbjct: 147394 ctggagatcgatttggggggagaaaaagaaaataacagg 147357
Score = 303 bits (153), Expect = 2e-79
Identities = 153/153 (100%)
Strand = Plus / Minus
         Query: 884
         tcgtggccagatatgtgcgggttgtcccccagacatggcaccagaggatagccttgaagg 1003
Query: 944
         Sbjct: 145467 tcgtggccagatatgtgcgggttgtcccccagacatggcaccagaggatagccttgaagg 145408
```

tggagctcattggttgccagattacacaaggta 1036

Query: 1004

```
Sbjct: 145407 tggagctcattggttgccagattacacaaggta 145375
```

Score = 270 bits (136), Expect = 2e-69
Identities = 136/136 (100%)
Strand = Plus / Minus

Query: 109 ggtccatactgtggaagtatgactgttcccaaagaactcttgttgaacacaagtgaagta 168

Sbjct: 167580 ggtccatactgtggaagtatgactgttcccaaagaactcttgttgaacacaagtgaagta 167521

Query: 169 accgtccgctttgagagtggatcccacatttctggccggggttttttgctgacctatgcg 228

Query: 229 agcagcgaccatccag 244

Sbjct: 167460 agcagcgaccatccag 167445

Score = 266 bits (134), Expect = 3e-68

Identities = 134/134 (100%)

Strand = Plus / Minus

Query: 370 acctctttattgtgcaaagctgccatccatgcaggaataattgctgatgaactaggtggc 429

Sbjct: 155137 acctctttattgtgcaaagctgccatccatgcaggaataattgctgatgaactaggtggc 155078

Query: 430 cagatcagtgtgcttcagcgcaaagggatcagtcgatatgaagggattctggccaatggt 489

Query: 490 gttctttcgaggga 503

Sbjct: 155017 gttctttcgaggga 155004

Score = 256 bits (129), Expect = 3e-65

Identities = 129/129 (100%)

Strand = Plus / Minus

Query: 759 aggaattaggaccacaggatctacacagtcgaacttcaacttttatgttaagagttttgt 818

A .

Query: 819 gatgaacttcaaaaacaataattctaagtggaagacctataaaggaattgtgaataatga 878

```
Ouery: 879
         agaaaaggt 887
          Sbjct: 146820 agaaaaggt 146812
Score = 248 bits (125), Expect = 8e-63
Identities = 125/125 (100%)
Strand = Plus / Minus
tcagctatgataatgagaaggagatgacacaaaagttagatctcatcacaagtgatatgg 1396
Query: 1337
          Sbjct: 140625 tcagctatgataatgagaaggagatgacacaaaagttagatctcatcacaagtgatatgg 140566
Query: 1397
         caggt 1401
          11111
Sbjct: 140565 caggt 140561
Score = 220 bits (111), Expect = 2e-54
Identities = 111/111 (100%)
Strand = Plus / Minus
         acagtaccaaaggggaaaagactgattctgaggttgggagatttggatatcgaatcccag 60
Query: 1
          Sbjct: 183524 acagtaccaaaggggaaaagactgattctgaggttgggagatttggatatcgaatcccag 183465
         acctgtgcttctgactatcttctcttcaccagctcttcagatcaatatggt 111
Query: 61
          Sbjct: 183464 acctgtgcttctgactatcttctcttcaccagctcttcagatcaatatggt 183414
Score = 220 bits (111), Expect = 2e-54
Identities = 111/111 (100%)
Strand = Plus / Minus
         aggtaatgattcattggtgtggcgcaagacaagtcaaagcaccagtgtttcaactaagaa 1091
Query: 1032
         Sbjct: 145277 aggtaatgattcattggtgtggcgcaagacaagtcaaagcaccagtgtttcaactaagaa 145218
         agaagatgagacaatcacaaggcccatcccctcggaagaaacatccacagg 1142
Ouery: 1092
         Sbjct: 145217 agaagatgagacaatcacaaggcccatcccctcggaagaaacatccacagg 145167
```

```
Score = 180 bits (91), Expect = 2e-42
 Identities = 91/91 (100%)
 Strand = Plus / Minus
Query: 1140
           aggaataaacattacaacggtggctattccattggtgctccttgttgtcctggtgtttgc 1199
            Sbjct: 143070 aggaataaacattacaacggtggctattccattggtgctccttgttgtcctggtgtttgc 143011
           tggaatggggatctttgcagcctttagaaag 1230
Query: 1200
            Sbjct: 143010 tggaatggggatctttgcagcctttagaaag 142980
 Score = 151 bits (76), Expect = 1e-33
 Identities = 76/76 (100%)
 Strand = Plus / Minus
Query: 294
           cagcaaattctgcccagctggttgtagagacgtagcaggagacatttctgggaatatggt 353
           Sbjct: 162035 cagcaaattctgcccagctggttgtagagacgtagcaggagacatttctgggaatatggt 161976
           agatggatatagagat 369
Query: 354
           Sbjct: 161975 agatggatatagagat 161960
Score = 109 bits (55), Expect = 5e-21
Identities = 55/55 (100%)
Strand = Plus / Minus
Query: 242
           cagatttaataacatgtttggaacgagctagccattatttgaagacagaatacag 296
           Sbjct: 165873 cagatttaataacatgtttggaacgagctagccattatttgaagacagaatacag 165819
Score = 91.7 bits (46), Expect = 1e-15
Identities = 49/50 (98%)
Strand = Plus / Minus
Query: 1230
           gaagaagaagaaggaagtccgtatggatcagcggaggctcagaaaacag 1279
           Sbjct: 141664 gaagaagaagaaaggaagtccgtatggatcagcagaggctcagaaaacag 141615
Score = 85.7 bits (43), Expect = 7e-14
```

Query: 504 tggttccctgtcagacaagcgatttctgtttacctccaatggt 546

Identities = 43/43 (100%)
Strand = Plus / Minus

```
Sbjct: 150212 tggttccctgtcagacaagcgatttctgtttacctccaatggt 150170
  Database: Homo_sapiens.latestgp.fa
    Posted date: Jul 8, 2003 12:51 PM
  Number of letters in database: 200,800,637,119
  Number of sequences in database: 26,679
Lambda
   1.37
          0.711
                    1.31
Gapped
          к н
Lambda
1.37
          0.711
                    1.31
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 0, Extension: 0
Number of Hits to DB: 0
length of query: 2810
length of database: 200,800,637,119
effective HSP length: 22
effective length of query: 1382
effective search space used:
T: 0
A: 0
X1: 0 ( 0.0 bits)
X2: 20 (39.6 bits)
S1: 12 (24.3 bits)
S2: 38 (75.8 bits)
```